

REMARKS

This application is amended in a manner to place it in condition for allowance at the time of the next Official Action.

Status of the Claims

Claims 16 and 17 and are directed to the previously examined subject matter, i.e., method and tool the attachment of a hairpiece to a lock of hair using an adhesive curable by exposure to UV radiation. Support for the amendment to the claims may be found, for example, at page 5, line 20 to page 6, line 22, in view of Figures 1 and 2.

Claims 1, 4-5, 7-12, and 15-17 remain in this application.

Claim Rejections-35 USC §103

Claims 1, 4-5, 7-9, 11 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over PARK US 2004/0168699 ("PARK") in view of FUKUYAMA US 7,165,557 ("FUKUYAMA").

Claims 10 and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over PARK in view of FUKUYAMA, further in view of GANG US 5,894,846 ("GANG").

These rejections are respectfully traversed for the reasons below.

As previously pointed out in the amendment filed February 2, 2009, the use of a UV curable adhesive is desirable,

as no or little heat is required. This is particularly important if hairpieces are self applied, because there is far less chance of the users burning themselves. Specifically, as discussed on pages 1 and 2 of the present specification, a UV curable adhesive would give a distinct advantage because it is safer than heating a glue which becomes liquid, and could drip, which would of course result in a significant risk of burns.

Accordingly, the claimed invention includes a method for joining a hairpiece to a lock of hair to provide a hair extension in which the hairpiece and lock of hair are brought in contact with an adhesive curable by exposure to UV radiation, and a tool for attaching a hairpiece to a lock of hair, which includes a clamping element to clamp the hairpiece and lock of hair together and a source of UV radiation.

The proposed combination of documents, however, fails to render obvious the claimed invention for at least the five reasons below:

1. PARK and FUKUYAMA solve different problems.

The objective of PARK is to improve attaching artificial hair to strands of natural hair growing from a scalp using a hand-held tool. See, e.g., paragraphs [0013] and [0024].

The objective of FUKUYAMA is to improve the method of wig assembly by hand by utilizing a wig manufacturing system

(e.g., column 1, lines 20-31). That is, FUKUYAMA focuses on adhering individual hairs 30 (Fig 1) to a substrate, or base sheet, 11 to form a "root", not adhering the hairs to a natural hair growing from the scalp.

Thus, the documents would not be readily combined by one of ordinary skill in the art, as their disclosed methods solve different problems and utilize unrelated tools to carry out these methods.

2. The adhesives serve different functions in these documents.

PARK requires a heat curable adhesive to attach artificial hair to natural hair growing from a scalp. Hair extension 20 (e.g., as shown in the drawings) has heat meltable adhesive 30 pre-applied to one end. PARK describes the adhesive in detail at paragraph [0025], e.g., an operating temperature of around 160-180°C is preferred. The hair extension is attached to the lock of hair using a pair of heated tongs 28 maintained at the operating temperature in order for the adhesive to coat the hair strands. The tongs also provide ridges 62 of the clamps to assist in the distribution of the adhesive (paragraphs [0031] and [0047]).

In FUKUYAMA, however, a UV-cured adhesive, e.g., first layer 111, is used for adhering individual hairs 30 (Fig 1) to the substrate, or base sheet, 11 to form a "root". This first adhesive layer is applied to the base sheet, and the first layer

and at least part of the base sheet are melted. That is, the adhesive layer is distributed over and with the base sheet.

Subsequently, a second adhesive layer 112 is subsequently applied to the first layer of FUKUYAMA. It is this second adhesive layer that adheres the wig to an individual's skin. See, e.g., column 12, line 41 to column 13, line 58.

Thus, unlike the adhesive of PARK, the UV-cured adhesive of FUKUYAMA is not used to adhere natural hairs to artificial hairs, but merely artificial hairs to a substrate.

3. FUKUYAMA fails to teach that for which it is offered.

The motivation cited in the Official Action for combining FUKUYAMA with PARK was that a UV curable adhesive would reduce the thickness of the overall hairpiece. However, this is neither taught nor suggested by FUKUYAMA.

Instead the "reduction in thickness" apparently results from the choice in materials in the base sheet and the first layer. That is, the first layer and base sheet melt together when exposed to UV radiation, e.g., from the paragraph bridging columns 12 and 13:

"First adhesive layer or swell 111 preferably comprises adhesive having a main ingredient identical to a material of base sheet 11. By way of example, base sheet 11 is made from polyurethane and the adhesive of first adhesive layer 111 comprises polyurethane-base adhesive. When irradiation of ultraviolet rays are applied after the polyurethane-base adhesive has been applied, not only the adhesive is melted but also base sheet 11 of polyurethane is at least partly melted or softened, so that first adhesive layer 111 will be partly

merged into base sheet 11, thereby ensuring that artificial hair 30 is fixedly bonded to base sheet 11. This also lowers the height of the first adhesive layer 111 and, therefore, reduces the overall thickness of the finished hairpiece."

Thus, FUKUYAMA actually discloses that a desired reduction in thickness is achieved when the substrate melts under the same conditions as the first adhesive layer, which would not be suitable for combination with PARK, as the substrate of PARK is the artificial hair itself.

4. PARK and FUKUYAMA do not teach the claimed invention.

Even if one were to combine these documents as proposed, the combination fails to teach the claimed invention.

That is, none of the cited documents disclose or suggest using a UV curable adhesive, pre-applied to a hair extension to bond the hairpiece to a lock of hair.

On the contrary, the closest prior art (PARK) discloses pre-applying thermo-plastic glue to a hairpiece. While FUKUYAMA uses a UV curable adhesive to adhere artificial hair to a substrate to make a hairpiece, this is not the same as using a UV curable adhesive, pre-applied to a hair extension to bond the hairpiece to a lock of hair.

Furthermore, the combination fails to teach a tool as claimed.

5. Gang fails to remedy the shortcomings of PARK and FUKUYMA.

GANG does not make clear that a switch for activating a source of UV radiation is closed when jaw members of the tool are hinged towards each other. On the contrary, GANG discloses that a switch 40 (in Fig 3) moves the heating iron from an open to a closed position (see column 6 lines 27-30) it does not make clear that the switch actuates a source of anything.

Moreover, GANG fails to disclose or suggest a method or tool as claimed.

Therefore, in view of the five reasons discussed above, the proposed combination does not render obvious the claimed invention, and withdrawal of the rejection is respectfully requested.

Conclusion

In view of the amendment to the claims and the foregoing remarks, this application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to our credit card which is being paid online simultaneously herewith for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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